

system comprising:

transducer means, spaced from the medium to be inspected, for introducing to and sensing from the medium an acoustic signal that propagates in said medium at a predetermined frequency said transducer means including a laser vibrometer interferometer for sensing the acoustic signal propagating in the medium.

Please add claims 26-29 as follows:

26. A flaw detection system using acoustic Doppler effect for detecting flaws in a medium wherein there is relative motion between the medium and system, comprising:

a transducer, spaced from the medium to be inspected, that transmits optical energy for introducing to and sensing from the medium an acoustic signal that propagates in said medium at a predetermined frequency; and

a detector, responsive to the sensed propagating acoustic signal, that detects in the sensed acoustic signal the Doppler shifted frequency representative of a flaw in the medium.

27. The flaw detection system using acoustic Doppler effect of claim 26 in which said transducer includes a laser that transmits said optical energy.

28. A flaw detection system using acoustic Doppler effect for detecting flaws in a medium wherein there is relative motion between the medium and system, comprising:

a transducer, spaced from the medium to be inspected, that introduces to and senses from the medium an acoustic signal that propagates in said medium at a predetermined frequency, said transducer including a laser vibrometer interferometer that senses the acoustic signal propagating in the medium.

29. A flaw detection system using acoustic Doppler effect for detecting flaws in a medium wherein there is relative motion between the medium and system, comprising:

a transducer, spaced from the medium to be inspected, that induces an acoustic signal to propagate in the medium at a predetermined frequency and senses the propagating acoustic signal in the medium, said transducer including a transmitter and a receiver, said transmitter including a laser that locally heats the medium to generate acoustic signals; and

means, responsive to the sensed propagating acoustic signal, for distinguishing the Doppler shifted frequency representative of a flaw in the medium.

A marked up copy of the claims as amended is attached at the end of this amendment for the Examiner's convenience.

#### REMARKS

The Applicant appreciates the Examiner's thorough examination of the application and requests reexamination and reconsideration of the application in view of the preceding amendments and the following remarks.